

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application. Please amend the claims as follows:

1. (Currently Amended) A method of replicating data objects from a source system to a target system, comprising:

~~creating~~providing an electronic data element accessible to at least one software program implementing one or more data-object replication processes and one or more software processes other than the one or more data-object replication processes, the electronic data element comprising a first field having an identifier and a second field having a state of the identifier, wherein the state of the identifier is set to one of the following states:

- a) a first state, in which said electronic data element is accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is assignable to one or more data objects stored in a memory,
- b) a second state, in which said electronic data element is not accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is

~~assignable~~ assigned to one or more data objects stored in a memory, and

c) a third state, in which said electronic data element is not accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is not assignable to one or more data objects stored in a memory;

setting the state of the identifier to the first state;

assigning, after setting the state of the identifier to the first state, the identifier to one or more data objects stored in a memory of the source system;

processing, by one or more of the software processes other than the data-object replication processes, ~~data-object processing operations~~, the one or more assigned data objects while the identifier is set to the first state;

changing the state of the identifier from the first state to the second state while at least some of the one or more assigned data objects are being processed by the one or more software processes other than the data-object replication processes; ~~data-object processing operations~~;

changing the state of the identifier to the third state when the one or more assigned data objects are finished being processed by the one or more software processes other than the data-object replication processes; ~~data-object processing operations~~; and

replicating, by the one or more data-object replication processes after changing the state of the identifier has been changed to the third state, the one or

more assigned data objects from the memory in the source system to a memory in the target system.

2. (Original) The method of claim 1, further comprising storing the one or more assigned data objects prior to replicating the one or more assigned data objects.
3. (Canceled)
4. (Previously Presented) The method of claim 2, further comprising setting, upon a commit of the storing of the one or more data objects, the state of the identifier to the third state.
5. (Currently Amended) A system for avoiding data loss in a data object replication process, comprising:
 - a source memory;
 - a target memory; and
 - a microprocessor coupled to the source and target memories and programmed to:
 - ~~create~~ provide an electronic data element accessible to at least one
 - software program implementing one or more data-object replication
 - processes and one or more software processes other than the one
 - or more data-object replication processes, the electronic data
 - element comprising a first field having an identifier and a second

field having a state of the identifier, wherein the state of the identifier is set to one of the following states:

- a) a first state, in which said electronic data element is accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is assignable to one or more data objects stored in a memory,
- b) a second state, in which said electronic data element is not accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is ~~assignable~~ assigned to one or more data objects stored in a memory, and
- c) a third state, in which said electronic data element is not accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is not assignable to one or more data objects stored in a memory;

set the state of the identifier to the first state;

assign, after setting the state of the identifier to the first state, the identifier to one or more data objects stored in the source memory;

process, using one or more of the software processes other than the
data-object replication processes, data object processing-
operations, the one or more assigned data objects while the
identifier is set to the first state;
change the state of the identifier to the second state while at least some of
the one or more assigned data objects are being processed by the
one or more software processes other than the data-object
replication processes; data object processing operations;
change the state of the identifier to the third state when the one or more
assigned data objects are finished being processed by the one or
more software processes other than the data-object replication
processes; data object processing operations; and
replicate, by the one or more data-object replication processes after
~~changing~~ the state of the identifier has been changed to the third
state, the one or more assigned data objects from the source
memory to the target memory.

6. (Original) The system of claim 5, wherein the microprocessor is further
programmed to store the one or more assigned data objects prior to replicating the one
or more assigned data objects.

7. (Canceled)

8. (Previously Presented) The system of claim 6, wherein the microprocessor is further programmed to set, upon a commit of the storing of the one or more data objects, the state of the identifier to the third state.

9. (Currently Amended) A system for replicating data objects from a source system to a target system, the system comprising:

means for ~~creating~~providing an electronic data element accessible to at least one software program implementing one or more data-object replication processes and one or more software processes other than the one or more data-object replication processes, the electronic data element comprising a first field having an identifier and a second field having a state of the identifier, wherein the state of the identifier is set to one of the following states:

a) a first state, in which said electronic data element is accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is assignable to one or more data objects stored in a memory,

b) a second state, in which said electronic data element is not accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is

~~assignable~~ assigned to one or more data objects stored in a memory, and

c) a third state, in which said electronic data element is not accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing operations~~ and whereby said identifier is not assignable to one or more data objects stored in a memory;

means for setting the state of the identifier to the first state;

means for assigning, after setting the state of the identifier to the first state, the identifier to one or more data objects stored in a memory of the source system;

means for processing, by one or more of the software processes other than the data-object replication processes, ~~data-object processing operations~~, the one or more assigned data objects while the identifier is set to the first state;

means for changing the state of the identifier to the third state when the one or more assigned data objects are finished being processed by the one or more software processes other than the data-object replication processes; ~~data-object processing operations~~;

means for changing the state of the identifier from the first state to the second state while at least some of the one or more assigned data objects are being processed by the one or more software processes other than the data-object replication processes; ~~data-object processing operations~~;

means for replicating, by the one or more data-object replication processes after changing the state of the identifier has been changed to the third state, the one or more assigned data objects from the memory in the source system to a memory in the target system.

10. (Currently Amended) A computer-readable medium storing instructions for execution by a processor, the instructions when executed by the processor for performing a method of replicating data objects from a source system to a target system, the method comprising:

~~creating-providing~~ an electronic data element accessible to at least one software program implementing one or more data-object replication processes and one or more software processes other than the one or more data-object replication processes, the electronic data element comprising a first field having an identifier and a second field having a state of the identifier, wherein the state of the identifier is set to one of the following states:

a) a first state, in which said electronic data element is accessible by one or more of the software processes other than the data-object replication processes ~~data-object processing-operations~~ and whereby said identifier is assignable to one or more data objects stored in a memory,

b) a second state, in which said electronic data element is not accessible by one or more of the software processes other than the data-object replication processes ~~data-object~~

~~processing operations~~ and whereby said identifier is
~~assignable~~ assigned to one or more data objects stored in a
memory, and

c) a third state, in which said electronic data element is not
accessible by one or more of the software processes other
than the data-object replication processes ~~data-object-~~
~~processing operations~~ and whereby said identifier is not
assignable to one or more data objects stored in a memory;

setting the state of the identifier to the first state;

assigning, after setting the state of the identifier to the first state, the identifier to
one or more data objects stored in a memory of the source system;

processing, by one or more of the software processes other than the data-object
replication processes, ~~data-object processing operations~~, the one or more
assigned data objects while the identifier is set to the first state;

changing the state of the identifier from the first state to the second state while at
least some of the one or more assigned data objects are being processed
by the one or more software processes other than the data-object
replication processes; ~~data-object processing operations~~;

changing the state of the identifier to the third state when the one or more
assigned data objects are finished being processed by the one or more
software processes other than the data-object replication processes; ~~data-~~
~~object processing operations~~; and

replicating, by the one or more data-object replication processes after changing-
the state of the identifier has been changed to the third state, the one or
more assigned data objects from the memory in the source system to a
memory in the target system.